

13. (Amended) A vector comprising expression regulatory elements operably linked to the nucleic acid molecule[, the nucleic acid molecule complementary thereto, or the fragment] of claim 10.

15. (Amended) An isolated and purified nucleic acid molecule comprising:

(a) a pre-pro persephin nucleotide sequence as set forth in [SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:190, SEQ ID NO:191,] SEQ ID NO:203, [SEQ ID NO:204,] or SEQ ID NO:205, [or SEQ ID NO:206] [or a polynucleotide that specifically hybridizes to SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, or SEQ ID NO:206]; or

(b) a pre-pro region of a persephin polynucleotide as set forth in [SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:192, SEQ ID NO:193,] SEQ ID NO:213[, SEQ ID NO:214,] or SEQ ID NO:215[, or SEQ ID NO:216];

[(c) a pre- region of a persephin polynucleotide as set forth in SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, or SEQ ID NO:210;

(d) a pro- region of a persephin polynucleotide as set forth in SEQ ID NO:211, or SEQ ID NO:212; or

(e) a fragment thereof comprising at least 15 contiguous nucleotides].

34. A non-naturally occurring nucleic acid molecule or nucleic acid molecule complementary thereto comprising a nucleotide sequence encoding a polypeptide [or a fragment of the nucleotide sequence consisting of at least 15 nucleotides], wherein the polypeptide

(a) comprises seven canonical framework cysteine residues,

(b) has at least [75%] 85% sequence identity with SEQ ID NO:221 [or SEQ ID NO:223], and

(c) promotes survival of mesencephalic neuronal cells.

35. (Amended) A vector comprising expression regulatory elements operably linked to the nucleic acid molecule or the nucleic acid molecule complementary thereto[, or the fragment] of claim 34.

36. (Amended) A cell which produces the non-naturally occurring nucleic acid molecule or nucleic acid molecule complementary thereto [or fragment] of claim 34.